

CLAIMS

1. A fluid dispenser device comprising: a reservoir (1) containing the fluid and a propellant; a metering valve (2) mounted on said reservoir and comprising a metering chamber, and a valve member (3) that is movable between a rest position and a dispensing position; and an automatic trigger system, preferably actuated by the user inhaling in order to actuate said valve, said trigger system including an actuator element (10) adapted to displace one of the valve member (3) and the reservoir (1) relative to the other so as to bring the valve member (3) of the valve (2) into its dispensing position, the device being characterized in that it includes, in combination, a brake system (60, 70) which co-operates with the reservoir (1) or with the valve member (3) in order to slow down displacement of the valve member (3) towards its dispensing position while the device is being actuated, and a valve-member release system that is actuated automatically when the valve member (3) reaches its dispensing position, and which returns said valve member (3) to its rest position independently of the position of said actuator element (10).

2. A device according to claim 1, in which said brake device (60, 70) is pneumatic and/or hydraulic.

3. A device according to claim 2, in which said brake device (60) comprises a piston (61) connected to said actuator element (10) by means of a control element (40), said piston (61) sliding in sealed manner in a chamber (62), said chamber (62) or said piston (61) being provided with a small passage (63) so that the gas or liquid can flow only slowly into or out of said chamber (62), ensuring that said piston (61) is displaced slowly.

4. A device according to claim 2, in which said brake device (70) comprises a piston (71) connected to said

actuator element (10) by means of a control element (40),
said piston (71) sliding in non-sealed manner in a
chamber (72) so that the air contained in the chamber
(72) can flow only slowly out of said chamber (72),
5 ensuring that said piston (71) is displaced slowly.

5. A device according to any preceding claim, in which
said valve-member release system includes a blocking
element (20) co-operating with one of the valve member
10 (3) and the fluid reservoir (1), said blocking element
(20) being movable between a blocking position, in which
the valve member (3) can be brought into its dispensing
position by said actuator element (10) of the trigger
system, and an unblocking position, in which the valve
15 member (3) is returned to its rest position independently
of the position of said actuator element (10), said
blocking element (20) being urged towards its unblocking
position after the trigger system has been actuated, when
the valve member (3) reaches its dispensing position.

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6. A device according to claim 5, in which the valve-
member release system includes a retaining member (30)
that is displaceable between a retaining position, in
which it retains said blocking element (20) in its
25 blocking position, and a non-retaining position, in which
it does not retain said blocking element (20) in its
blocking position, said retaining member (30) being
displaced towards its non-retaining position when the
valve-member (3) reaches its dispensing position.

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7. A device according to claim 6, in which said valve-
member release system includes a control element (40) co-
operating firstly with the valve member (3) and/or with
the actuator element (10), and secondly with said
35 retaining member (30), so that when the valve member (3)
reaches its dispensing position, the control member (40)
makes it possible to displace the retaining member (30)

into its non-retaining position, so that the blocking element (20) is displaced towards its unblocking position and the valve member is returned to its rest position by the return spring of the valve.

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8. A device according to claim 7, in which said retaining member (30) is elastically deformable, and said control element includes a first inside diameter (41) co-operating with the retaining member (30) so as to prevent it from deforming, and thus hold it in its retaining position, and a second inside diameter (42) that is greater than said first inside diameter (41), which co-operates with said retaining member (30) when the valve member (3) reaches its dispensing position, thereby enabling said retaining member (30) to deform towards its non-retaining position.

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9. A device according to claim 8, in which said retaining member (30) includes one or a plurality of elastically deformable tabs (30).

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10. A device according to claim 8 or claim 9, in which the second-diameter portion (42) of the control element (40) is formed by one or a plurality of openings adapted to co-operate with the retaining member (30).

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